UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

CHURCH & DWIGHT CO., INC., Plaintiff, - against - THE CLOROX COMPANY, Defendant.	CIVIL ACTION NO.: 11 Civ. 1865 (JSR)

PLAINTIFF'S POST-PRELIMINARY INJUNCTION HEARING MEMORANDUM OF LAW

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PRELIMINARY STATEMENT

Plaintiff Church & Dwight submits this Post-Evidentiary Hearing Memorandum to show that, based on the testimony and exhibits before this Court, its preliminary injunction motion should be granted. Before discussing the evidence, we first briefly examine the legal framework in which the evidence must be considered.

Defendant Clorox concedes that the superscript phrase "Based on sensory lab test" appearing during the depiction of the "Green Gas Demo" makes the Commercial's comparison of the odor-fighting efficacy of carbon and baking soda an "establishment claim." *See* Clorox Mar. 24, 2011 Opp. Mem. 14.[1] The term "establishment claim" refers to an advertising claim that either explicitly or implicitly is based on test results. In Lanham Act cases where the advertiser *does not* base its claim on test results, the plaintiff must prove that the claim is affirmatively false, not merely that it is unsubstantiated by reliable testing. *E.g.*, *McNeil-PPC, Inc. v. Pfizer Inc.*, 351 F. Supp. 2d 226, 248-49 (S.D.N.Y. 2005); *see S.C. Johnson & Son, Inc. v. Clorox Co.*, 241 F.3d 232, 238 (2d Cir. 2001).

In contrast, a plaintiff challenging an establishment claim, like Church & Dwight here, has a lesser burden. Church & Dwight need *not* show that the advertiser's claim is affirmatively false. Instead, Church & Dwight "need only prove that the tes[t] referred to" in the Commercial was "not sufficiently reliable to permit one to conclude with *reasonable certainty* that [it] established the proposition for which [it was] cited."[2] *McNeil-PPC,* 351 F. Supp. 2d at 248. *Accord, McNeil-P.C.C., Inc. v. Bristol-Myers Squibb Co.,* 938 F.2d 1544, 1549 (2d Cir. 1991);

[1] The term "Commercial" refers collectively to the 30- and 15-second versions of the Clorox commercial at issue in the preliminary injunction motion. A disk containing the 15-second version of the Commercial is Ex. 7 to the March 17, Cohen Declaration. Storyboards of the 30- and 15-second versions of the Commercial are, respectively, Ex. E to the March 24 Stilwell Declaration and Ex. 8 to the Cohen Declaration.

[2] All emphasis in quotations is supplied unless otherwise indicated.

Procter & Gamble Co. v. Chesebrough-Pond's, Inc., 747 F.2d 114, 119 (2d Cir. 1984); *Zeneca, Inc. v. Eli Lilly & Co.*, 1999 U.S. Dist. LEXIS 10852, *89 (S.D.N.Y. Jul. 15, 1999).

There are two ways Church & Dwight can meet its burden under the Second Circuit's "reasonable certainty" standard: either it can show that Clorox's Jar Test (Clorox concedes that is the "sensory lab test" referred to in the Commercial) is "*not sufficiently reliable* to permit the conclusion for which it is cited," or that the Jar Test, "*even if reliable*, do[es] not establish the proposition asserted by the defendant," and is "thus 'simply irrelevant.'" *Zeneca,* 1999 U.S. Dist. LEXIS at *90 (*quoting Castrol, Inc. v. Quaker State Corp.*, 977 F.2d 57, 62 (2d Cir. 1992)).

To determine "the proposition" in the Commercial that the Jar Test supposedly proves, the Court must review the Commercial. In this Circuit, this review involves three controlling legal principles. First, the Court must "analyze the message conveyed in full context." *Time Warner Cable, Inc. v. DIRECTV, Inc.*, 497 F.3d 144, 158 (2d Cir. 2007); *S.C. Johnson & Son, Inc.*, 241 F.3d at 238 ("In considering a false advertising claim, fundamental to any task of interpretation is the principle that text must yield to context. Thus, a . . . court must consider the advertisement in its entirety and not . . . engage in disputatious dissection. The entire mosaic should be viewed rather than each tile separately") (citations and quotations omitted).

Second and relatedly, under the "literally false by necessary implication" doctrine, this Court can find that an advertisement makes an unambiguous, literal claim even if the claim is not stated *in haec verba.* This doctrine has long been recognized and applied by the Courts of this District beginning with *Cuisinarts, Inc. v. Robot-Coupe Int'l Corp.,* 1982 U.S. Dist. LEXIS 13594, at *2-3 (S.D.N.Y. June 9, 1982), and was formally adopted by the Second Circuit in *Time Warner Cable*, 497 F.3d at 158.

The doctrine provides that if an advertisement's "words or images, considered in context, necessarily imply a false message, the advertisement is literally false and no extrinsic evidence of consumer confusion is required"). *Id.*; *see also Gillette Co. v. Wilkinson Sword, Inc.*, 1991 U.S. Dist. LEXIS 21006 (KMW), at *12-13 (S.D.N.Y. Jan. 9, 1991) (advertiser's claim that lubrication strip on its razors was "six times smoother" than plaintiff's strip necessarily implied that advertiser's razor provided a shave that was "six times smoother" than plaintiff's razor); *Castrol, Inc. v. Pennzoil Co.*, 987 F.2d 939, 946 (3d Cir. 1993) (advertiser's claim that its motor oil was superior in protecting against viscosity breakdown necessarily implied that its motor oil was superior in protecting against engine problems).[3]

Finally, although the Court expressed skepticism about this point at the March 28 oral argument, it is very much the case that the message the advertiser intended to communicate is probative of the advertisement's literal meaning. *See Avis Rent A Car Sys., Inc. v. Hertz Corp.*, 782 F.2d 381, 385-86 (2d Cir. 1986) ("literal meaning of [an] advertisement must be determined in light of [the] context in which [the] challenged statements [are] made *and defendant's intent in making them*"); *Gillette Co.*, 1991 U.S. Dist. LEXIS 21006, at *13-18 ("The court finds that Wilkinson intended to make a shaving smoothness superiority claim, evidence of which is found in the reports and memoranda from Wilkinson's files described below. The fact that Wilkinson intended to make such a claim supports the court's findings as to necessary implication"); *Am. Home Prods. Corp. v. Johnson & Johnson*, 654 F. Supp. 568, 575-76 (S.D.N.Y. 1987) (explicitly taking into account "internal memorandum[s] outlining the objectives of the [advertising]

[3] The necessary implication doctrine can fairly be viewed as the false advertising law equivalent of the securities fraud concept this Court noted at the evidentiary hearing. Tr. 175:24-176:10.

campaign" in agreeing with plaintiff that "the central message of the [advertisement] is its comparison among the three analgesics").[4]

With the above as background, we now summarize the reasons Church & Dwight's preliminary injunction motion should be granted. First, Clorox appeared to argue at the hearing that the Commercial's only literal claim was that carbon is superior to baking soda when those ingredients are tested individually against cat waste in jars, and that the Commercial did not literally claim that carbon would work better than baking soda in cat litters. Tr. 176:19-177:2 (noting that "the jar test has nothing to do with litter, it has to do with carbon and baking soda"). That argument is specious, and the Court was correct in noting "it would be absurd" if the concept of literal falsity "excluded liability for half truths." Tr. 176:15-18. The Commercial is about cat litters, and no reasonable consumer would understand the Commercial to communicate that one should buy Fresh Step because carbon works better than baking soda in jars, although not in litters.

The Court appears to be considering whether the Commercial's only literal claim is limited to the performance of carbon vs. baking soda as individual ingredients in litters, and does not extend to the comparative performance of the litters as a whole. As discussed below, Church & Dwight disagrees that the Commercial's literal message is so limited. But even if it is, the Jar Test is not sufficiently reliable to permit the Court to conclude with reasonable certainty that the Jar Test establishes the superiority of carbon versus baking soda as individual cat litter ingredients for the following reasons:

[4] We do not repeat here the elements of a Lanham Act claim for false advertising or the standards for the grant of a preliminary injunction in this Circuit, all of which are known to the Court and, in all events, are set forth in Church & Dwight's March 17, 2011moving brief at 12-14.

- First, neither the Jar Test nor the Green Gas Demo depicting it reliably demonstrates the relative performance of carbon and baking soda in the parties' cat litters. The Jar Test is not an accepted test of the odor fighting ability of carbon in cat litters. Moreover, in multiple respects, the Jar Test conditions are different than those in which carbon performs in Fresh Step litters. In each such respect, the Jar Test conditions improve the performance of carbon compared to how it performs in litters. Given Clorox's sophistication in R&D and marketing, and its admission that the Jar Test was specifically created for advertising claim substantiation (Tr. 245:16-246:14), it defies belief that any of these differences was unintentional. But even if this Court accepts Ms. Russell's unlikely testimony that Clorox never considered the differences between the Jar Test's design and how carbon operates in litters (Tr. 281:13-18), that testimony cuts strongly against the notion that the Jar Test is a reliable method of demonstrating how carbon performs in litters.

- Second, the Jar Test panelists' ratings for the jar of cat waste covered with carbon – 44 zeroes out of 44 ratings – are extremely implausible. They should have caused Clorox to question whether the panelists were truly blind as to the carbon jar's contents and to Clorox's expectations of the Jar Test's desired outcome. Clorox's experts agree with Church & Dwight's expert Dr. Daniel Ennis that variation in the ratings of trained sensory panelists is so common as to be essentially universal. But for the first time at the June 24 hearing, Clorox's experts testified that ratings variation would not be expected when no odor is present in a sample. On this point, Dr. Ennis is demonstrably correct and Clorox's experts are wrong. Dr. Ennis's position is fully supported by (i) all the tests in evidence besides the Jar Test, in which Clorox's trained panelists frequently detected cat waste malodor when none was present, and (ii) the scientific literature recognizing that one cause of sensory variation is neural noise unconnected to the stimulus, which leads to false alarms in which odor and other sensory stimuli are routinely detected even when they are not present.

- Third, the parties' experts agree that sensory panel data is highly prone to error and bias, and that consequently, repeated training of panelists by sensory experts is required for sensory tests to produce reliable and accurate results. But even in the face of evidence calling into question the reliability and accuracy of the Jar Test results (the total absence of variability in the carbon jar, coupled with high variability in the baking soda jar), Clorox elected not to offer any testimony about the training of the Jar Test panelists, or the results of that training, from any witness who participated in or observed the training. Indeed, Clorox offered no evidence as to who trained the Jar Test panelists in the run up to the Jar Test (apparently it was a Clorox employee, not someone from Sensory Spectrum), or that the trainer was qualified to conduct sensory panel training, or that the training enabled the Clorox panelists to make accurate and reliable odor intensity judgments in the Jar Test. In short, it is difficult to imagine an evidentiary record more lacking in support for the proposition that the Jar Test sensory results were sufficiently reliable to allow the Court to conclude "with reasonable certainty" that they substantiate the Commercial's superiority claim or the Green Gas Demo.

- Fourth, there is no plausible evidence that the Sensory Spectrum scale Clorox used to calculate the ratio on which the Green Gas Demo is based is a ratio scale. The creator of that scale, Clorox expert Gail Vance Civille, concedes that the scale has not been accepted as a ratio scale by ASTM or any other standard setting body, it is not accepted as a ratio scale in the scientific literature, and there is no evidence in the record that demonstrates that the scale has ratio properties. As a result, the Green Gas Demo depicting the beaker labeled "baking soda" eliminating only 1/3 of the green gas is not substantiated by the Jar Test, and thus is literally false.

The above bullets assume that the Commercial's literal message only concerns the superiority of carbon versus baking soda as individual ingredients in cat litters. However, Clorox internal documents make crystal clear that the Commercial's intended message is that Clorox's Fresh Step litter is superior to Arm & Hammer litter in odor elimination because of the presence of carbon in Fresh Step litter. That intended message is necessarily implied by the Commercial when viewed in full context. The Commercial is about cat litter; the product it markets is a cat litter, not carbon; and the beaker on the left in the Green Gas Demo is prominently labeled Fresh Step, the name of Clorox's litter. And if there is another message reasonably communicated by the Commercial, what it is it? It cannot be that consumers should buy Fresh Step litters because carbon eliminates cat odors better than baking soda, even if overall, Fresh Step litter provides inferior, or no better, odor control than Arm & Hammer litters.

Both parties' litters contain multiple odor fighting ingredients. Church & Dwight submits the only reasonable interpretation of the Commercial is what Clorox intended to communicate: Fresh Step litters are better than baking soda litters because Fresh Step contains carbon instead of baking soda. Obviously, the Jar Test does not substantiate that claim, because the Jar Test neither involves the parties' litters nor any of the other odor-fighting components of the litters. Moreover, as discussed in Point III below, both parties' litter tests demonstrate the falsity of a claim that Fresh Step litters provide better odor control than Arm & Hammer.

ARGUMENT

I. THE JAR TEST IS NOT SUFFICIENTLY RELIABLE TO ENABLE THE COURT TO CONCLUDE WITH REASONABLE CERTAINTY THAT THE CARBON IN FRESH STEP LITTERS ELIMINATES CAT WASTE ODORS BETTER THAN THE BAKING SODA IN ARM & HAMMER LITTERS, MUCH LESS THAT THE DIFFERENCE IS AS LARGE AS SHOWN IN THE DEMO

Assume for argument's sake that the Commercial's only literal message is that the Jar Test proves that carbon in Fresh Step litters is more effective against cat waste odors than baking soda in Arm & Hammer litters. Then the question for the Court to decide is whether the Jar Test is a sufficiently reliable indicator of how carbon performs in litters compared to how baking soda performs in litters.

One important indicator of whether a test possesses sufficient reliability to substantiate an establishment claim is whether it has been deemed valid by independent third parties. *See S.C. Johnson & Son, Inc. v. Clorox Co.*, 930 F. Supp. 753, 765 (E.D.N.Y. 1996) (advertiser's test was unreliable because, *inter alia*, its validity "has not been adopted by any member of the urban entomology community outside of Clorox, other than by Clorox's paid expert witness in this case"); *Zeneca, Inc.,* 1999 U.S. Dist. LEXIS 10852, at *74, *77-78 (rejecting advertiser's assertion that the testimony of witnesses who "have an interest in demonstrating [the] scientific significance" of the advertiser's test renders that test reliable).

Here, there is no record evidence that the Jar Test is considered by the sensory testing community to be a valid indicator of how carbon and baking soda perform in cat litters. To the contrary, Clorox's Manager of Research and Development (Litter and Foods), Jodi Russell, explained that the Jar Test was invented by one of Ms. Russell's subordinates for the express purpose of claim substantiation for the Commercial. (Tr. 245:16-246:14.)

A. The Jar Test Design Enables Carbon to Perform Substantially Better Against Cat Waste Odors in a Jar than it does in Fresh Step Litters

The results of the Jar Test plainly are not representative of how well carbon will perform in Fresh Step litter. As Church & Dwight's expert Dr. Seth Miller succinctly testified: "it's my opinion that the jar test is an artificial environment that is not a valid indicator of how carbon or baking soda would perform in cat litter … the performance of carbon is exaggerated in the jar test compared to how it would actually perform in cat litter." Tr. 155:23-25; 156:5-6. Dr. Miller gave three separate reasons for his conclusion, and also testified that the Jar Test's exaggeration of carbon's performance relative to how it performs in Fresh Step litters did not apply to baking soda. Tr. 156:23-157:3; 165:22-166:9; 170:8-16. Clorox did not dispute this latter point.

Dr. Miller is a highly trained physical organic chemist, having received a PhD from the California Institute of Technology. Dr. Miller studied and has worked professionally in the fields of absorption and neutralization, the respective manners in which carbon and baking soda reduce odor, and is an expert in the scientific principles that underlie how carbon absorbs odor molecules. Tr. 146:22-151:18; 200:11-14. He has current and substantial experience working with carbon. His most recent work involves efforts to improve the efficiency of carbon as an absorbent and to limit, in a particular industrial application, carbon's action as an indiscriminate absorber of all molecules with which it comes in contact, an issue directly relevant to how the Jar Test exaggerates carbon's performance compared to how it works in Fresh Step litter. Tr. 150:8-151:7.[5]

[5] Clorox argued that Dr. Miller was not qualified to opine on how carbon would perform in absorbing odors in the Jar Test as compared to in Fresh Step Litter. As explained above, Dr. Miller's education and knowledge regarding carbon and baking soda, and his work experience with carbon (and other substances) as an absorbent, and baking soda as a neutralizer, fully qualifies him to offer the opinions he gave. *See, e.g., Santoro v. Donnelly*, 340 F. Supp. 2d 464, 473 (S.D.N.Y. 2004) ("The question is not whether the engineer is an expert on the exact issues presented in the case, but rather, whether his general engineering experience qualifies him to testify in an area in which he does not have extensive experience. 'Where an expert has the education or background to permit him to analyze a given set of circumstances, he can through reading, calculations, and reasoning from known scientific principles make himself very much an expert in the particular product even though he has not had actual experience in its manufacture.'"). The Court should also take note that Clorox's expert on carbon, Professor Bandosz admitted that

Dr. Miller's first point was that, unlike in the Jar Test (where the only odor to which the carbon was exposed was cat waste), the odor-absorbing capacity of carbon in the litter will be "substantially degraded" as a result of absorbing the fragrance molecules Clorox adds to Fresh Step Litters before the carbon comes into contact with cat waste in the litter box. Tr. 161:23-164:1; 164:15-19. Dr. Miller proved this point as follows. As a matter of basic organic chemistry, it is indisputable that the carbon added to Fresh Step litter will absorb the fragrance present in Fresh Step. Tr. 156:7-10; 160:9-10. Dr. Miller testified that although carbon's capacity to absorb odors is substantial, it is by no means unlimited. Carbon molecules will become saturated after being exposed to an odor, including a fragrance, for a long enough period of time. Tr. 160:19-161:5, 15-18.

Understanding that Fresh Step litter is manufactured and then distributed, transported, held in storage and shelved for an extended period of time before actually being used in a litter box, Dr. Miller testified that "during that time the carbon has the opportunity to absorb all of these [fragrance] odor molecules that surrounded it. By the time the cat litter is actually poured into the litter box, that carbon has had ample opportunity to become substantially deactivated by, for example, these added fragrances, and that's – that severely compromises its ability to further absorb other molecules." Tr. 162:4-14.

Accordingly, Dr. Miller concluded unequivocally that the capacity of carbon in Fresh Step litter as it will be used by a consumer will be "substantially degraded," that "the jar test exaggerates the performance of real carbon in real cat litter [a]nd that, that deactivation that I'm describing here is real and significant." Tr. 164:9-19. Dr. Miller was able to reach and unequivocally stand behind this conclusion for two distinct reasons. First, because the fragrance

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she has "not studied the odor-reduction capacities of carbon as opposed to baking soda with respect to cat litter (Bandosz March 24 Decl. ¶ 13 & n.2), yet Clorox did not hesitate to proffer her as an expert.

in Fresh Step will be released in the bag of litter and absorbed by the carbon (a point Clorox has not disputed), basic principles of chemistry and sorption dictated Dr. Miller's conclusion. Tr. 201:5-13; 157:4-10; 160:9-18. Second, Dr. Miller smelled a box of Fresh Step litter and was able to clearly smell the fragrance, confirming that the carbon was substantially degraded; as Dr. Miller testified, if he could smell the fragrance so strongly, the carbon was not active enough to absorb all of it. (Tr. 163:17-164:20.)

Ms. Russell's testimony actually confirms Dr. Miller's opinion. *See* Sealed Tr. 295:22-25. Ms. Russell admitted that the carbon in Fresh Step will absorb the fragrance added to the litter if exposed to it. Sealed Tr. 250:18-20; 252:21-253:6. While Ms. Russell argued that the fragrance will be released and exposed to the carbon only when the litter is physically moved because of a proprietary feature of Clorox's litter (Sealed Tr. 250:21-251:14), she also agreed that every time a bag or box of Fresh Step litter is moved, fragrance will be released and all of it will be trapped in the bag or box until it is absorbed by the carbon. Sealed Tr. 252:18-253:4; 254:23-255:5 ("Any free fragrance that is in the box will probably be absorbed by the carbon, that is correct"). Ms. Russell also agreed that boxes of cat litter are moved many, many times in the post-packaging, pre-use process of distribution, storage and consumer purchase before the litter is poured into the litter box (Sealed Tr. 255:11-256:1), offering the carbon in the litter significant and repeated exposure to the fragrance, as Dr. Miller had testified. Ms. Russell ultimately acknowledged that "if the carbon was completely saturated, then it couldn't, you know, absorb any more of the fragrance." Sealed Tr. 257:6-8.

Ms. Russell attempted to provide a reason that the carbon in the litter would not be substantially impaired, despite the foregoing undisputed facts, but her justification failed. Ms. Russell's reasoning was simply that there is a significant amount of fragrance locked into the

litter and that was why Dr. Miller could smell the fragrance when sniffing the carton. Sealed Tr. 254:5; 256:3-16. However, as Dr. Miller pointed out, the relevant issue is not the amount of fragrance added to the litter but rather *whether there is enough carbon in the litter* to absorb not only the fragrance but also the cat waste; thus, the more fragrance added, the more surface area of the carbon in the litter that will be saturated by that fragrance when it is released. In other words, the more fragrance in the box, the more the carbon will be degraded. Yet, Ms. Russell's main response to Dr. Miller was that there is a lot of fragrance in the box.

As Dr. Miller noted:

> The question isn't whether or not we released all of the fragrance that's in the carton? The question is whether we've released enough fragrance to saturate the carbon…. The carbon is not a majority component here, the carbon's a small amount of the material that's in the litter.… [G]iven that they need to put enough fragrance into that carton in order for it to survive so [that it] can continue to be released … [w]hat happens is the fragrance has the opportunity to saturate the carbon.

Sealed Tr. 297:16-298:3.

Dr. Miller's response to Clorox's argument about the "football field" size of carbon's surface area was that he did not observe a significant quantity of carbon in the litter capable of absorbing the large quantity of fragrance: "you can visually inspect the litter and it's not black, so the total amount of carbon in that litter, it has to be [a] relatively low percentage." Sealed Tr. 298:25-299:2. Only Clorox knows the amount of carbon it adds to Fresh Step and if the amount were large, Ms. Russell would have stated so. Instead, Clorox failed to disclose the amount of carbon in Fresh Step litters, and Ms. Russell never disagreed that there was only a small amount of carbon by volume in Fresh Step.

At the end of the day, there was no real dispute between Dr. Miller and Ms. Russell as to *whether* there was degradation in the odor-absorption capacity of the carbon in Fresh Step litter;

the dispute only concerned *how much* degradation had occurred. But on this issue, for the reasons just described, Dr. Miller's testimony that the degradation was substantial should be credited. Aside from Dr. Miller's superior credentials and his better understanding of the principles of chemistry governing and dictating this critical issue, Ms. Russell's obvious partisanship undermines her credibility.[6] So too does the fact that her defense of the Jar Test is an afterthought: Ms. Russell admitted to never having considered before the Jar Test was designed "that there could be a difference between the way the carbon in the jar performs and the way carbon in [Fresh Step] litter performs." Tr. 281:13-18.

Also telling is that Clorox chose not to bring its chemistry expert Dr. Bandosz to the hearing to rebut Dr. Miller. Instead, Clorox relied on the entirely conclusory testimony of its own employee Ms. Russell to assert that the reduction in efficacy of the carbon, while present, is immaterial. Of course, Clorox and Ms. Russell, who knew about Dr. Miller's opinion well before the evidentiary hearing, were in a position to produce proof of the amount of carbon in the litter compared to the amount of fragrance to support her empty conclusion, but elected not to.

Dr. Miller offered two additional reasons why the Jar Test is an invalid test to determine whether carbon is better than baking soda at reducing cat waste malodor to extent communicated by the Demo, both of which Clorox also failed to refute. He testified that the carbon in Fresh

[6] Among other things, Ms. Russell (a) willingly signed two declarations creating the false impression that she had direct personal knowledge of the training and validation of Clorox's sensory panelists, including the Jar Test panelists, when in fact she never participated in or observed a single such session (Tr. 289:9-13); and (b) harshly criticized Church & Dwight for using synthetic cat feces in its sensory testing (Mar. 24 Decl. ¶ 40; Mar. 27 Decl. ¶ 19), without informing the Court that one of the ASTM guidelines which Clorox cited but did not produce in this case (*see* Civille Apr. 1 Decl. ¶ 9) specifically recognizes the validity of using synthetic feces for the very same health reason that caused Church & Dwight to use synthetic feces. Plaintiff's Hearing Ex. 4, ¶ 9.1; and (c) identified the Sensory Spectrum scale as a "universal, ASTM industry standard" scale (Russell Mar. 24 Decl. ¶ 13), despite that the ASTM guidelines state explicitly that "no single universal method is specified" for sensory claim substantiation. Plaintiff's Hearing Ex. 2, ¶ X.1.7.1. Whether or not Ms. Russell knew of the discrepancies between her testimony and the ASTM guidelines is besides the point; her credibility is compromised whether she gave knowingly deceptive testimony or merely was ignorant as to material facts of which her employer was aware. In short, despite her pleasant demeanor on the witness stand, Ms. Russell allowed herself to be the mouthpiece for positions Clorox took in this case as to which, at best, Ms. Russell was insufficiently informed.

Step litter is additionally impaired because it is bound to the clay litter particles, unlike the free standing carbon powder in the Jar Test, and that this further reduced the surface area of carbon available to adsorb cat waste odor. Tr. 156:12-15; 169:12-170:1. Clorox did not refute this point either on cross or through Ms. Russell. All Clorox could elicit was that Dr. Miller did not have any "direct measurements" as to the amount by which the efficacy of the carbon in the litter would be reduced because of the odor-absorbing surface area lost to the process of binding the carbon to the litter particles. Tr. 188:16-189:20. But again, Dr. Miller's conclusion "that if carbon is bound to a clay particle, there will be less surface area available to absorb odor" was based on "scientific principles" (Tr. 201:14-17) that Clorox did not contest.

Dr. Miller's third point, that the sealing of the jars further artificially improved the performance of carbon but not that of baking soda in comparison to how each reduces cat waste malodor in litter was also not disputed. As Dr. Miller explained, "in cat litter when the cat waste is deposited in the litter, odors can immediately seep out into the room, whereas in the jar test the system is sealed and the carbon is given 24 hours of time to absorb those odors before testing. That's important, because carbon is somewhat slow at absorbing." Tr. 156:16-21; *see also* Tr. 170:19-171:19. Indeed, Ms. Russell admitted that in an enclosed environment such as a sealed jar, carbon would be aided in more completely absorbing malodor. Tr. 248:12-15. Ms. Russell also admitted that some cat waste malodor would escape the litter box and permeate the air under normal litter box conditions, which could not occur in the sealed Jar Test. Tr. 281:22-24; 283:1-4. That admission *alone* shows that even if were true that all the cat waste odor in the jars was absorbed by the carbon, this result would not occur from the carbon in Fresh Step litter.

Dr. Miller testified that baking soda, which works through the more immediate process of neutralization as opposed to absorption, was not similarly advantaged in the Jar Test because of

the different chemical nature by which baking soda reduces odor: "the sealing of the jar allows carbon hours in order to become maximally effective. The baking soda is over – the reaction's over in seconds, and so sealing the jar for 24 hours doesn't add anything to the system that, for example, running it open wouldn't have given it." Tr. 172:10-173:3. Thus, carbon in a jar sealed for an extended period will have longer to react with and deodorize cat waste because the odor cannot escape into the air and be smelled. That advantage is not present in an open litter box and, for this reason, the carbon in the Jar Test will reduce cat waste malodor more effectively than in Fresh Step cat litter.

Finally, there is no evidence in the record that the amount of carbon used in the jar test bears any relationship to the amount of carbon contained in Fresh Step litters. In sum, the Jar Test is not a valid or reliable test to determine whether carbon in cat litter will reduce cat waste malodor better than baking soda in litter, and certainly whether the difference reaches the level depicted in the Commercial's disparaging Green Gas Demo.[7]

Multiple courts have held that an advertiser cannot substantiate a claim using testing that does not use the same ingredients or proportions as the product being sold. *See, e.g., McNeil-P.C.C., Inc.*, 938 F.2d at 1547, 1550 (affirming, *inter alia*, district court's holding that advertiser's study was irrelevant to claim regarding over-the-counter medication because the study "was based on doses of caffeine and analgesic that were beyond [over-the-counter] levels"); *see also Osmose, Inc. v. Viance, LLC*, 612 F.3d 1298, 1313-14 (11th Cir. 2010) (tests of MCQ-treated wooden fence posts and stakes were insufficient to support advertising claims regarding the integrity of structures created using MCQ-treated wood); *Schering-Plough*

[7] While there was some question at the hearing whether the Commercial specified that the green gas in the Demo depicted cat waste malodor, the super below the Demo in the Commercial explicitly states "dramatization of cat waste malodor after one day." Cohen Decl. Ex. 8 & Stillwell Ex. E; Tr. 159:9-15 (Miller). Ms. Russell confirmed that "[t]he claim that we are making is that carbon is more effective than baking soda for cat waste malodor" and that the green gas represented cat waste malodor. Tr. 253:1-9; 253:23-254:1.

Healthcare Prods., Inc. v. Neutrogena Corp., 702 F. Supp. 2d 266, 277-79 (D. Del. 2010) (tests of sunscreens having a certain concentration of key ingredients were insufficient to support an advertising claim regarding a sunscreen with a different concentration of ingredients); *Church & Dwight Co. v. S.C. Johnson & Son, Inc.*, 873 F. Supp. 893, 904-05 (D.N.J. 1994) (test of carpet cleaner's ability to counteract malodors was insufficient to support an advertising claim where the test used the cleaner and malodorant in proportions significantly different than those present in consumers' homes).

B. The Court Cannot Conclude With Reasonable Certainty That the Jar Test Panelists' Ratings Reliably Measure the Actual Odor Reduction Achieved in the Jar Test

Dr. Ennis testified that even with trained panelists, variation in sensory ratings of the same thing by the same panelist and from panelist to panelist is to be expected. Tr. 34:10-23; Ennis Apr. 11 Decl. ¶ 21. As Dr. Ennis explained, the reason for this variation is only in part caused by changes in the thing that is being smelled (for example, fluctuations in malodorant concentrations caused by "air flow variation and condensation/ evaporation from surfaces." *Id.* ¶ 21. The variation in sensory ratings is also caused by the functioning of the human brain, which causes sensory panelists (and other humans) to perceive the exact same thing differently at different times. Or, as Dr. Ennis explained it more technically, "panelists' neural processors that link odorants to the perception of odor are in constant flux; and panelists have tendencies to rate exactly the same perception differently at different times depending on their rating biases and expectations." Ennis Apr. 11 Decl. ¶ 21; *see also* Tr. 34:14-17.

In the Jar Test there was plenty of variation in the panelists' rating of the jar with baking soda and cat waste. In fact, the panelists' ratings of the baking soda/cat waste jar were all over the map. A review of the panelists' ratings of the baking soda sample in all four replicates (or "sessions") of the Jar Test shows the significant variation as follows:

Session 1		Session 2		Session 3		Session 4	
Judge	TM Rating	Judge	TM Rating	Judge	TM Rating	Judge	TM Rating
101	0.7	101	1.5	101	1.8	101	1.0
102	2.0	102	2.3	102	1.6	102	2.8
103	1.5	103	2.0	103	2.5	103	2.0
104	2.5	104	2.5	104	2.2	104	3.2
105	0.8	105	1.0	105	1.0	105	1.0
106	1.1	106	1.8	106	1.1	106	1.5
107	2.8	107	3.2	107	3.5	107	3.8
108	3.5	108	2.0	108	2.0	108	0.5
111	2.2	111	2.8	111	2.8	111	1.8
114	1.8	114	0.8	114	0.7	114	1.0
119	1.3	119	1.0	119	1.4	119	0.9

See Russell Mar. 24 Decl. Ex. C at D117-18. As the above chart, coupled with the uniform zero ratings for the carbon jar shows, the portion of the Sensory Spectrum scale used by the Jar Test panelists ranged from 0 to 3.8. The variation in the panelist ratings of the baking soda jar spanned nearly the entirety of that portion of the scale, ranging from 0.5 to 3.8, and nearly everywhere in between. There was also substantial variation in the Jar Test panelists' rating for the untreated cat waste jar. *See id.*

By contrast, there was no variation whatsoever in the panelists' rating of the jar containing carbon and cat waste. In all 44 replicates, the ratings for the carbon/cat waste jar was zero. As Dr. Ennis testified, the utter absence of any variability in the panelists' rating of the carbon/cat waste jar, coupled with the variable ratings by the same panelists for the baking soda/cat waste and untreated cat waste jars, was implausible and inexplicable in a fairly run test, and demonstrated that the Jar Test panelists somehow had become unblinded as to the identity of the carbon/cat waste jar and/or Clorox's expectations about the desired result of that test. Ennis Apr. 11 Decl. ¶¶ 19-22, 25-28; Tr. 35:22-36:1, 36:18, 64:15-66:5.

Clorox's expert B. Thomas Carr agreed with Dr. Ennis that variability is inherent and expected in sensory panel ratings. In his April 5 Supplemental Declaration at ¶ 8, Mr. Carr

stated that "Humans, even highly trained sensory panelists, are 'noisy' measuring instruments, meaning that there is going to be some variation among a particular panelist's repeated responses to a particular sensory stimulus. For a variety of physiological and psychological reasons, humans do not perceive and report the same value when evaluating the same sample repeatedly." And Clorox's other expert, Gail Vance Civille agreed as well. At the hearing, she testified about the book she co-authored with Mr. Carr and a third author, called *Sensory Evaluation Techniques, Fourth Edition*. Tr. 86:3-7. In that book (at p. 2), Ms. Civille and Mr. Carr wrote that "as measuring instruments" sensory panelists are "(1) quite variable over time; (2) very variable among themselves; and (3) highly prone to bias."[8]

However, for the first time at the evidentiary hearing, Mr. Carr and Ms. Civille stated that they did not find the complete absence of variability in the Jar Test panelists' ratings for the carbon/cat waste jar in the Jar Test to be an indicator of any problem with the Jar Test. Tr. 107:16-108:2 (Civille); Tr. 221:21-25 (Carr). Mr. Carr testified that the variability of sensory panelists only exists when an actual "stimulus," in other words a malodor, is present: "There has to be a stimulus to be perceived before a trained panelist will say that there's a perceptible intensity and assign a number to it.… when there is no odor present, it's not at all surprising that they will report all zeros, because there is no -- no intensity to perceive." Tr. 221:23-25; 228:21-23. Ms. Civille made essentially the same point.

In short, the conflict in the testimony about the 44 zeros in the carbon/cat waste jar between Dr. Ennis and Clorox's experts boils down to one issue: does the substantial variability

[8] Excerpts from the Civille/Carr book are collected at Exhibit 2 to the Ennis June 29 Declaration. In the above quote, the authors refer to the sensory panelists as "Tasters." To be clear, however, they were not referring to sensory panelists who taste things as opposed to panelists who smell things. Rather, as the authors expressly state, "With regard to terminology, the terms *assessor, judge, panelist, respondent, subject*, and *taster* are used interchangeably" (emphasis in the original). *Id.* at unnumbered page 2 of the Preface.

in sensory ratings that each expert acknowledged was inherent disappear when no stimulus is present. On that issue, Dr. Ennis is correct, and Mr. Carr and Ms. Civille are wrong.

First, Dr. Ennis's position is supported, and the Carr/Civille position is contradicted, by *both* of the sensory tests in the record in which Clorox's trained sensory panelists were asked to smell a sample that in fact contained no cat waste malodor. In each of those tests, at least some of the trained Clorox panelists reported smelling cat waste odor where none existed. Thus, in the Clorox internal panel validation test report, the average rating of the Clorox "internal panel" for the Empty Booth (Fresh Step cat litter with no cat waste malodor added) was 0.4. Russell Mar. 24 Decl. Ex. B at 20; *see also* Tr. 129:22-130:2. Similarly, in the Clorox external panel test reported in the same document, the panelists' average score for the Empty Booth, which also contained Fresh Step litter with no cat waste malodor added, was 0.1. *Id.* at 13; *see also* Tr. 131:24-132:3.

Moreover, in September 2010, several months before Clorox conducted the Jar Test it relies on in the Commercial, Clorox conducted an earlier jar test also involving jars in which carbon and baking soda were poured on cat waste. In that earlier jar test, which used the same protocol for the carbon and baking soda jars as the later Jar Test, many of the Clorox sensory panelists rated the carbon with cat waste sample above 0. Of the 60 individual ratings for the carbon sample in this jar test, 11 – or 18% – were higher than 0 (with several in the range of 0.6 or 0.7). Carr Apr. 5 Suppl. Decl. Ex. A at D243-44. The Jar Test is thus the only Clorox test that conveniently elicited all zero ratings.

The above three test results all support Dr. Ennis's position on the implausibility of getting 44 uniform ratings of zero on the 150-point Sensory Spectrum scale without the Jar Test panelists having been cued as to the contents of the carbon/cat waste jar and/or the outcome

Clorox expected for the test. Clorox's first jar test result also lays to rest Ms. Civille's speculation that, due to the mean malodor score for the Empty Booth in the Clorox external panel validation test being 0.1, only "one panelist" reported a score other than zero. *See* Tr. 132:8-10, 132:18-19. But in the first jar test, the mean score for carbon was less than 0.1 – 0.08 in fact – yet 11 of the 60 individual ratings were more than zero. *See* Carr Apr. 5 Suppl. Decl. Ex. A at D243-44. In short, if the absence of a malodor stimulus should result in uniform ratings of 0, as Mr. Carr and Ms. Civille maintained at the hearing, then the Clorox internal validation test of the Empty Booth, the Clorox external validation test of the Empty Booth, and Clorox's first jar test each should have resulted in uniform zeros. But none did.

Dr. Ennis's position is also consistent with the literature on the psychophysics of sensory perception, and the Carr/Civille position is not. Before the hearing, Mr. Carr recognized the inherent variability of sensory panelist measurements (Carr Apr. 5 Supp. Decl. ¶ 8), and he repeated this point at the hearing ("Every analytical measurement has some amount of variability associated with it"). Tr. 210:9-10. Ms. Civille (with Mr. Carr) made the same point in their book, recognizing that the ratings of sensory panelists are "very variable." Ennis June 29 Decl. Ex. 2 at 2. Yet at the hearing, Mr. Carr suddenly divined an exception to this principle, opining that he did not believe his earlier statements about the inherent variability of sensory panelists' judgments applied where no malodor stimulus was present. Tr. 228:15-21. Besides being discredited by the above Clorox test results and his own prior testimony, Mr. Carr's position is nonsense.

First, as Carr himself recognized when he referred to "physiological and psychological reasons" for sensory panelist variability (Carr Apr. 5 Suppl. Decl. ¶ 8), it has long been known that the science underlying the understanding of quantitative sensory evaluation is

psychophysics. *See* Ennis June 29 Decl. Ex. 3, R. Doty & D. Laing, *Psychophysical Measurement of Human Olfactory Function, Including Odorant Mixture Assessment* in HANDBOOK OF OLFACTION AND GUSTATION, 2d Ed., at 340 (hereinafter, "Doty & Laing"). Second, the notion that variation in sensory judgments exists only when there is a stimulus present, such as a malodor, is contrary to the literature in the sensory field. Dr. Ennis, an acknowledged expert in psychophysics (Tr. 227:7-8 (Civille)) and who has published extensively in the field (Ennis Apr. 11 Decl. Ex. A at 2-3), testified that variation in sensory ratings occurs not only because of factors related to the stimulus, but also due to neural factors, *i.e.*, human brain variability, unrelated to the stimulus. Tr. 34:14-17. The sensory literature (both on odor and other senses), supports this. *See* Doty & Lang (Ennis June 29 Decl. Ex. 3) at 346-50 (recognizing that in odor detection tests, variability or noise "can arise from a variety of sources" including "neural firing unrelated to the stimulus," with the result that even in tests where there is a "blank stimulus" or placebo, some level of "Reports of 'yes,'" in other words, reporting of "the presence of an odor" from the placebo, is expected); Ennis June 29 Decl. Ex. 4 (Mathewson, et al, reporting on a visual experiment in which the "false alarm rate" – detection of a particular stimulus when none was present – was 14%).[9]

As Dr. Ennis testified, the complete lack of variance for the carbon/cat waste jar in the Jar Test, coupled with the substantial variation in the same test for the other jars, raises a red flag that calls into serious question whether the Jar Test was truly blind. Even without more – and there is much more – this precludes any finding that the results of the Jar Test are sufficiently reliable to enable the Court to conclude with reasonable certainty that they support the Commercial's depiction of the performance of carbon compared to baking soda on cat waste.

[9] K. Mathewson, G. Gratton, M. Fabiani, D. Beck and T. Ro, *To See or Not to See*, JOURNAL OF NEUROSCIENCE, March 4, 2009, at 2725-32.

C. Clorox's Sensory Training and Testing Methods are Unreliable

One thing both sides' experts agree on is that for sensory data to be reliable, the sensory panelists have to undergo extensive and repeated training by a skilled and experienced sensory professional. Tr. 87:8-18 (Civille). In fact, in their book, Ms. Civille and Mr. Carr instruct that a sensory expert should participate in the design of a sensory study (Ennis June 29 Decl. Ex. 2 at 4), and should train the panelists to participate in that study. *Id.* They also note that the training should be conducted in a controlled professional sensory training facility (*id.* at 146-47) and that extensive time must be devoted to the training. *Id.* at 152. And, they emphasize that the training should be conducted by a qualified panel leader who herself has sufficient sensory training (*id.* at 142), and that it should be repeated regularly every three to four months. *Id.* at 156.

It is not clear who specifically conducted the original 2008 training and validation of the Clorox panelists, since Clorox produced no witness who claimed to have conducted, participated in or observed the training and validation. Tr. 188:19-25 (Civille); Tr. 290:23-25 (Russell). But the testimony is undisputed that at least since 2008, Clorox has conducted the training, validation, test design (other than statistics) and testing entirely itself, without any involvement by Sensory Spectrum. Tr. 252:13-15 (Russell). This has led to at least two consequences:

First, the record is bare of any evidence of the identity or qualifications of the Clorox employee or employees who trained Clorox sensory panelists after 2008, including with regard to the training of the Jar Test panelists in the run up to the Jar Test. Nor is it clear exactly what training the Jar Test panelists received in preparation for the Jar Test, or how effective that training was. Ms. Civille and Mr. Carr discuss at length in their book the type of training sensory panelists must undertake to be able to develop the expertise to give consistent and accurate odor intensity ratings. Ennis June 29 Decl. Ex. 2 at 146-57. But Clorox produced no witness who

was involved in the training, nor any evidence the Jar Test panelists had achieved the status of being consistent and accurate sensory instruments by the time they participated in the Jar Test.

Instead, Clorox contented itself with conclusory statements about the Sensory Spectrum method by persons with no personal knowledge of the details of the panelist training that actually took place at Clorox after 2008 or the effectiveness of that training. That is entirely insufficient to establish the reliability of the Jar Test results to a reasonable certainty, especially given the issues of (i) panelist accuracy and (ii) bias revealed by Clorox documents and testimony.

As to bias, both parties' experts recognize it to be a significant problem in sensory testing design and execution. Tr. 27:24-28:12, 41:15-25 (Ennis); Ennis June 29 Decl. Ex. 2 at 2. While bias may be less a problem in product development testing and benchmarking of competitive products, it is a serious problem in claim substantiation tests, because the prospective advertiser has a strong interest in a favorable outcome for its product. When such a test is designed and supervised in-house, a real risk of bias, whether deliberate or not, exists. Ms. Civille agreed that where a company "represent[s] to the public that the results of [a] test are an objective reliable result," the usual practice is to use an outside, independent entity to conduct the test. Tr. 126:1-6. Unlike Clorox, Church & Dwight used an independent consulting company to conduct its sensory testing in this case. Brown Mar. 16 Decl. ¶ 15.

But the Jar Test was not something Sensory Spectrum recommended, oversaw or had anything to do with. Instead, as Ms. Russell conceded, Clorox invented the Jar Test for the specific purpose of claim substantiation for intended advertising against Church & Dwight. Tr. 245:16-246:14. Even though Clorox knew that if the Jar Test "came out that carbon was superior to baking soda, then it was going to be used as claim support for advertising," Clorox

never once considered having the test conducted by an independent testing company. Tr. 246:6-247:7 (Russell).

Moreover, bias infected the Clorox sensory panels from the outset. The 2008 Sensory Spectrum protocol (Russell Mar. 24 Decl. Ex. B) necessarily resulted in stacking the deck in favor of Clorox's Fresh Step litters in any comparative claim substantiation test against Church & Dwight or other competitors. As further described below, it did so by permitting panelists, including the Jar Test panelists, to participate in Clorox sensory panels only if they could not distinguish any difference in malodor intensity between Fresh Step litter to which cat waste had been applied and the same Fresh Step litter with no malodor added. Interestingly, Ms. Civille testified that when Sensory Spectrum recommended that Clorox use Fresh Step litters as both the low-level malodor sample and the no-malodor Empty Booth in Clorox's panelist validation test, she was unaware that Clorox intended to use the sensory panels for advertising claim substantiation testing for Fresh Step litters. Tr. 127:15-128:1. And Ms. Russell admitted the sensory studies she conducted at Clorox have been primarily for research and product development. Tr. 255:26-23. But Clorox obviously does not deny that at some point, Clorox decided to use the same panelists who had been validated as described above for claim substantiation testing involving Fresh Step litters. That was, quite simply, inexcusable.

The Sensory Spectrum protocol is unambiguous that Clorox used its Fresh Step litter "as the low level of malodor product with the expectation that it will exhibit no significant difference in malodor intensity than Empty Booth." Russell Mar. 24 Decl. Ex. B at 8. The "Empty Booth" is the same Fresh Step product with no cat waste added. *Id.* at 13. Panelists who did not meet this expectation initially were further trained so that they either did meet it, or were not permitted to participate in Clorox sensory panels. *Id.* at 8. There is no other plausible reading of this

document. Indeed, Ms. Civille confirmed that validation is "whether or not [panelists] qualify [to participate in evaluations] or *require more training*." Tr. 121:18-21. In short, the only persons Clorox permitted to participate in claim substantiation litter testing were those who could not distinguish Fresh Step litters to which cat waste had been added from the same litters without any cat waste.

Clorox argues that Church & Dwight cannot directly link this methodology to the results of the Jar Test, but that argument misses the point. As shown in Point I.B above, the result for the carbon/cat waste jar in the Jar Test (44 zeroes out of 44 replicates) contrasted with the substantial variability in the same panelists' results for the other jars, is completely implausible if the Jar Test panelists were truly blind. That fact alone casts far more doubt about the reliability of the Jar Test results than the Second Circuit's reasonable certainty test permits.

It is not Church & Dwight's burden to prove how the blind was broken in the Jar Test. But the Sensory Spectrum training and validation document, combined with Clorox's decision to use panelists trained not to recognize any smell of cat waste malodor in Fresh Step litters in claim substantiation tests involving Fresh Step litters, certainly permits (indeed compels) the inference that Clorox deliberately put its thumb on the scale to influence the outcome of its cat litter claim substantiation testing. And, if Clorox did this for its cat litter claim substantiation testing, it is entirely logical to infer that Clorox did the same thing for its cat litter *ingredient* testing, which was intended as substantiation for the very same advertisement.

Nor is the likelihood of bias prevented or minimized by the fact that unlike cat litters, neither carbon nor baking soda itself has any discernable odor. As Dr. Miller testified, the combination of carbon and cat waste could produce an odor profile discernibly different from that produced by the combination of baking soda and cat waste, which could serve as a marker of

the identity of those products in future tests. Indeed, Mr. Carr's analysis of the Jar Test Data showed that even though the panelists reported smelling no malodor in every replicate, there was a mean "Total Intensity" rating for the carbon sample of .2591. Russell Mar. 24 Decl. Ex. C at D00121; Tr. 34:23-35:1, 44:21-45:4 (Ennis). Since there was no other odiferous ingredient besides cat waste in the carbon jars in the Jar Test, it appears that the panelists were smelling cat waste odor in those jars but not reporting it as malodor. In all events, the Jar Test was a "future test" that could have been affected by prior cues because, as previously discussed, the Clorox panelists had participated in at least one Jar Test involving baking soda and carbon previously.

Moreover, the Sensory Spectrum test method Ms. Russell claimed Clorox followed encouraged consensus building through group meetings of the panelists to discuss and evaluate practice and develop rating uniformity. Tr. 291:20-292:4 (Russell). That process can readily be perverted to influence the thinking of claim substantiation panelists so that they reach the result desired by the trainer, which in the case of the Jar Test was a Clorox employee. *See* Ennis Tr. 65:2-65:3, 67:14-68:5, 41:15-25, 70:7-72:23.[10]

Finally, even apart from the issue of bias, the evidence of record simply does not support the notion that the Clorox sensory panelists were trained to be accurate and consistent sensory instruments capable of making accurate and reliable sensory judgments. Ms. Civille testified that the variability among the panelists' ratings of the baking soda sample in the Jar Test was "surprising." Tr. 101:10-18. Ms. Civille further testified that, "if the panel had been properly validated," she would infer from this level of variability that "something may have happened at one end of the scale," especially "if the rest of the data is all clumped in one place." Tr. 101:19-

[10] The Court indicated that Dr. Ennis's testimony on this subject may be "too generalized to be of particular use." (*See* Tr. 264:4-265:6.) But if that testimony was general, it was the result of Clorox electing not to disclose the specific facts of how the Jar Test panelists were trained for the Jar Test. Without such testimony, and given the implausibility of the Jar Test results, reasonable certainty of the sufficiency of the Jar Test to substantiate Clorox's advertising claim is plainly lacking.

102:2. And indeed, the rest of the Jar Test data was all clumped in one place – every rating for the carbon/cat waste sample was 0.

While Mr. Carr testified that there is a "very consistent pattern of ratings all falling roughly within one unit from min to max, and that that's – that's the main theme of the data" (Tr. 220:19-22), he obviously was not looking at the variation between the panelists in each of the baking soda replicates. The ratings of the baking soda-covered cat waste sample varied across panelists in every session by approximately 3 units. *See* chart at p. 16, above.

II. THE DEMO BASED ON THE JAR TEST IS LITERALLY FALSE BECAUSE THE SENSORY SPECTRUM SCALE IS NOT A RATIO SCALE

The parties agree that a ratio scale requires two properties: an absolute zero and equal intervals between each point on the scale. Tr. 37:24-38:1 (Ennis); Tr. 90:10-90:16 (Civille). As Clorox admits, the depiction of the "baking soda" beaker in the Green Gas Demo is based on a ratio: the percentage difference between the average result of the untreated cat waste jar on the Sensory Spectrum scale (2.72) and the average result of the baking soda with cat waste jar on the Sensory Spectrum scale (1.85), both as determined by the Jar Test panelists. Russell Mar. 24 Decl. ¶16. Clorox does not dispute that for the Demo of the "baking soda" beaker to be accurate, the Sensory Spectrum Scale must be a ratio scale.

As Dr. Ennis testified, it is not. Ennis Apr. 11 Decl. ¶ 31; Tr. 38:1-3. After Dr. Ennis testified, Ms. Civille testified that the Sensory Spectrum scale is a ratio scale. Tr. 91:24-92:1. But her testimony, or more precisely her statement of belief unencumbered by any facts, falls an ocean short of what would permit the Court to conclude with reasonable certainty that the Sensory Spectrum scale is in fact a ratio scale.

At least as practiced by the Clorox panelists, the Spectrum Scale does not have an absolute zero. This is because, as demonstrated above, even when there is a true absence of

malodor, some of those panelists still report the presence of malodor and conversely, as in the first jar test, when some panelists detect no malodor at all, others do. Thus, unlike with weight, where zero really means no weight, or the Kelvin scale, where the lowest number signifies the absence of any heat, a rating of 0 on the Sensory Spectrum scale does not necessarily correlate with the absolute absence of odor. Ms. Civille testified that she knew zero on the Spectrum scale was absolute zero "because when panelists see nothing of a particular attribute, and people know what nothing is, no chocolate, no red, they know how to rate no." (Tr. 128:20-25) But that generality does not comport with the actual evidence in the record, which proves that the panelists trained on the Sensory Spectrum scale have difficulty determining what constitutes no odor.

There is also no basis in the record to conclude that the Spectrum Scale is an equal interval scale. Ms. Civille admitted that ASTM has not accepted her scale, or any scale for that matter, as a ratio scale. Tr. 137:19-20. Going even further, Ms. Civille admitted that no scientific body has accepted the Spectrum Scale as a ratio scale. Tr. 137:22-138:3. Moreover, in her and Mr. Carr's book, they characterize scales such as the Sensory Spectrum scale, where a panelist is asked "to 'rate' the intensity of a particular stimulus by assigning it a value . . . on a limited, usually numerical, scale" as "category" scales, and they then observe that category scales "do not generally provide values that measure the degree (how much) one sample is more than another." Ennis June 29 Decl. Ex. 2, at 56. And, in a display of candor not present in her testimony at the hearing, Ms. Civille then poses the question of whether a sensation resulting from a sensory stimulus is "2x as strong or 3x as strong", and in response, states that "No one, however, can answer such [a] questio[n] reproducibly and precisely." *Id.* at 48.

Simply put, there is no evidence from which this Court can conclude with reasonable certainty that the Sensory Spectrum scale is an equal interval scale. While Ms. Civille has the chutzpah to say it is, a sensory scale does not become a ratio scale, either in the arena of science or in Court, merely by the fiat of the scale's creator. Indeed, to the limited extent Ms. Civille's testimony on this point ventured beyond wishful thinking, it actually confirmed that the odor intensity levels of the references on which panelists are trained using her method do not reflect exact differences of intensity, a necessary component of an equal interval scale, but rather only *approximate* differences:

> Q. So how are panelists trained that a particular spruce oil concentration has a particular number on the scale?
>
> A. They are given a sample of spruce oil in a -- in a bottle or a vile or on a blotter and told that this intensity is *about* a two, for example. Then they are given another one, and it says and this one is *about* a five, and this one is *about* a 10.

Tr. 89:17-22.

Because one cannot conclude with reasonable certainty that the Sensory Spectrum scale is a ratio scale, the Demo is not properly substantiated. Under the law of establishment claims, the Demo is thus literally false and Clorox should be enjoined for the pendency of this case from airing the Commercial containing it. *See S.C. Johnson*, 930 F. Supp. at 782-83 (finding unsubstantiated establishment claims to be literally false); *Zeneca*, 1999 U.S. Dist. LEXIS 10852, at *95, *123-24 (same).

III. BECAUSE THE COMMERCIAL NECESSARILY COMMUNICATES A MESSAGE OF SUPERIOR CAT LITTER PERFORMANCE, THE JAR TEST IS IRRELEVANT TO, AND THUS FAILS TO SUBSTANTIATE THAT MESSAGE

Clorox does not deny that the Commercial is an advertisement for Fresh Step cat litter. Nor does Clorox sell carbon. Although the Commercial obviously concerns the litter ingredients carbon and baking soda, the necessary implication of the Commercial is that because of the

(alleged) superiority of carbon over baking soda, Fresh Step is better at eliminating cat waste odors than are litters containing baking soda. That message is enhanced by, among other things, the fact that the tube containing carbon in the Demo is far more prominently identified as Fresh Step than as carbon, and the inclusion of the unlimited superiority phrases "Fresh Step, your cat deserves the best" and "the smartest choice in litter." *See* Cohen Mar. 17 Decl. Ex. 8. Clorox documents confirm that the intended message of the Commercial is the superiority of its Fresh Step litter over Arm & Hammer litter in controlling odors. Cohen Apr. 25 Reply Decl. Ex. C. at D 00288, 00298, 00349, 00325 and 00353.

Even if the results were reliable, the Jar Test cannot substantiate Clorox's litter superiority message, and neither can the odor reduction tests the parties performed on Fresh Step and Arm & Hammer cat litter. Clorox's test comparing Fresh Step to Arm & Hammer Double Duty shows that Fresh Step is not better than Arm & Hammer baking soda-containing litters after 24 hours, as the Commercial claims, or after even one week. Brown Mar. 25 Reply Decl. ¶¶ 4-6 & Ex. A. Church & Dwight's litter test – the only one conducted by an independent testing company – comparing Fresh Step to Double Duty also shows Clorox's litter not to be better at reducing odor. Brown Mar. 16 Decl. ¶¶ 22-23; Hooper Mar. 16 Decl. Ex. 1. While Clorox conducted a litter test comparing Fresh Step to the Arm & Hammer variety Super Scoop, on which it is relying to substantiate the claims in the Commercial (*see* Russell Mar. 24 Decl. Ex. G at D00345-46), the results of that litter test are wholly unreliable because of the testing methodology discussed above (at p. 23-24) that inherently biases panelists to smell no malodor when smelling Fresh Step litters with cat waste applied to them.

But even if the Court deemed Clorox's litter test on Super Scoop to be reliable, the difference between the odor-reducing performance of Fresh Step and Super Scoop was by an

amount not detectable by consumers according to the hearing testimony of Gail Civille. The difference between the parties' litter was approximately .4 on the Sensory Spectrum scale after day 1. Russell Mar. 24 Decl. Ex. G at D00346. The difference that Ms. Civille testified is required for normal people to perceive a difference in the intensity of two odors on the Sensory Scale was one (1.0) unit (Tr. 114:22-25) – far greater than the difference reported in the Clorox litter test used to substantiate the Commercial.

Clorox knew there was very little difference in the performance between the parties' cat litter when releasing the Commercial and designing the Green Gas Demo that grossly overstates that difference. As an email between Clorox and its advertising company DDB stated: "the difference between FS litter and A&H litter in the tubes would not be nearly as dramatic as carbon vs. baking soda. The difference between carbon vs baking soda would be much harder hitting than litter vs litter." Cohen Mar. 25 Reply Decl. Ex. C at D353.

A Demo that exaggerates the difference in performance between two products through visual images is literally false under clear Second Circuit precedent. *S.C. Johnson & Son, Inc.*, 241 F.3d at 238.

CONCLUSION

For the foregoing reasons, this Court should grant Church & Dwight's motion for a preliminary injunction.

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Respectfully submitted,

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